Amendments to the Claims

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims

1. (currently amended) - A ligand specific for human epithelial cancer cells, wherein said ligand has the chemical structure of ~~eXGXGXXe~~ $cX_2GX_4GX_6X_7c$, in which "c" is D-cysteine; ~~"X" is an~~ "X_2", "X_4", "X_6", and "X_7" are amino acids selected from the group consisting of L-amino acids, D-amino acids, and unnatural amino acids~~, and modified amino acids~~; and "G" is glycine; and further, wherein "X_2" is either polar and neutral or polar and acidic, and wherein "X_4" is hydrophobic.

2. (original) - The ligand of claim 1, wherein said epithelial cells are ovarian cancer cells.

3. (currently amended) - A ligand specific for human non-epithelial cancer cells, wherein said ligand has the chemical structure of ~~eXGXGXXe~~ $cX_2GX_4GX_6X_7c$, in which "c" is D-cysteine; ~~"X" is an~~ "X_2", "X_4", "X_6", and "X_7" are amino acids selected from the group consisting of L-amino acids, D-amino acids, and unnatural amino acids~~, and modified amino acids~~; and "G" is glycine; and further, wherein "X_2" is either polar and neutral or polar and acidic, and wherein "X_4" is hydrophobic.

4. (original) - The ligand of claim 3, wherein said non-epithelial cells are brain cancer cells.

5. (withdrawn) - A method of identifying a small molecule ligand that promotes cell attachment and proliferation, comprising:

introducing a suspension of live mammalian cells to a one-bead-one-compound combinatorial small molecule library, wherein said library comprises multiple solid phase supports with synthetic small molecule compounds attached thereto;

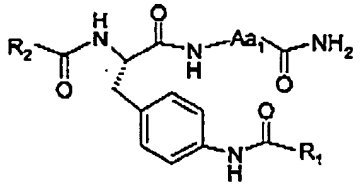
incubating said cells with said solid phase supports of said library for a period of about 24 to about 72 hours;

identifying a solid phase support having cells growing thereon;

isolating said identified solid phase support; and

identifying and determining the chemical structure of the small molecule attached to said identified solid phase support.

6. (withdrawn) - A ligand specific for human liver cancer cells having the chemical structure of



wherein "Aa_1" is selected from the group consisting of D-cys, Cys, Trp, Nva, Aic, Dpr, Ile, Nle, and D,L-beta-Fal(2); "R_1COOH" is selected from the group consisting of 3-pyridine propionic acid, 4-bromophenyl acetic acid, 2-pyrazine carboxylic acid, 2-thiophene carboxylic acid, phenoxy acetic acid, benzoic acid, and cyclopropane carboxylic acid; and "R_2COOH" is selected from the group consisting of indole-2-carboxylic acid, 4-phenoxybenzoic acid, 2-butynoic acid, 2-pyrazine carboxylic acid, 4-hydroxyl phenyl acetic acid, and 3-thiophene carboxylic acid.

7. (withdrawn) - A method of identifying a peptidomimetic ligand that promotes cell attachment and proliferation, comprising:

introducing a suspension of live mammalian cells to a one-bead-one-compound combinatorial peptidomimetic library, wherein said library comprises multiple solid phase supports with synthetic peptidomimetic compounds attached thereto;

incubating said cells with said solid phase supports of said library for a period of about 24 to about 72 hours;

identifying a solid phase support having cells growing thereon;

isolating said identified solid phase support; and

identifying and determining the chemical structure of the peptidomimetic compound attached to said identified solid phase support.

8. (withdrawn) - A ligand specific for human lung cancer cells having the chemical structure of $cNGZ_2GZ_1Xc$, in which "c" is D-cysteine; "X" is selected from the group consisting of Trp, Asp, Glu, Leu, His, Met, Asn, and Thr; "G" is glycine; "Z_1" is selected

from the group consisting of Glu, Thr, 4-cyclohexylcarbonylamino-L-phenylalanine, and Nle; and "Z_2" is selected from the group consisting of 4-[(4-methylphenyl)sulfonylamino]-L-phenylalanine, 4-(2-pyrazinylamino)-L-phenylalanine, 4-cyclopropylcarbonylamino-L-phenylalanine, Asp, Glu, and Nle.

9. (withdrawn) - A ligand specific for human pancreatic cancer cells having the chemical structure of $cNGZ_2GZ_1Xc$, in which "c" is D-cysteine; "X" is selected from the group consisting of Val, Pro, Asn, Thr, Ala, and Glu; "G" is glycine; "Z_1" is selected from the group consisting of 4-(2-thenoylamino)-L-phenylalanine, 4-(3-thenoylamino)-L-phenylalanine, 4-(4-bromophenyl)carbonylamino-L-phenylalanine, and 4-(3-dimethylaminophenyl)carbonylamino-L-phenylalanine; and "Z_2" is selected from the group consisting of 4-(3-hydroxy-2-quinoxalinecarbonylamino)-L-phenylalanine, 4-(2-pyrazinylamino)-L-phenylalanine, Glu, 4-(3-dimethylaminophenyl)carbonylamino-L-phenylalanine, His, and 4-(3-thenoylamino)-L-phenylalanine.